

Information Disclosure Statement By Applicant

Applicant:

T. Shalit

Filing Date:

3/4/99

Group:

2774

(Use Several Sheets if Necessary)

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-Class	Filing Date
DD	A	3,919,691	11/11/75	Noll	340	172.5	5/26/71
DD	B	4,560,983	12/24/85	Williams	340	825	9/17/82
DD	C	4,706,294	11/10/87	Ouchida	381	109	6/10/86
DD	D	4,795,296	1/3/89	Jau	414	5	11/17/86
DD	E	4,800,721	1/31/89	Cemenska et al.	60	393	2/13/87
DD	F	4,823,634	4/25/89	Culver	74	471 XY	11/3/87
DD	G	4,983,901	1/8/91	Lehmer	318	685	4/21/89
DD	H	5,044,956	9/3/91	Behensky et al.	434	45	1/12/89
DD	I	5,107,262	4/21/92	Cadoz et al.	341	22	10/12/89
DD	J	5,146,566	9/8/92	Hollis, Jr. et al.	395	275	5/29/91
DD	K	5,184,319	2/2/93	Kramer	364	806	2/2/90

Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation Yes	No
DD	L	WO 95/32459	11/30/95	PCT	--	--	X	
DD	M	WO 97/20305	6/5/97	PCT	--	--	X	
	N							
	O							
	P							

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
DD	R	Rosenberg, "A Force Feedback Programming Primer For PC Gaming Peripherals Supporting I-Force 2.0 and Direct-X 5.0," Apr. 1997, Immersion Corporation.
DD	S	Winey III, "Computer Simulated Visual and Tactile Feedback as an Aid to Manipulator and Vehicle Control," Dept. of Mech. Eng., MIT, June 1981.
DD	T	Russo, "The Design and Implementation of a Three Degree-of-Freedom Force Output Joystick," Dept. of Mech. Eng., May 1990.
Examiner: <i>Jucdenh</i>		Date Considered: 2/20/01

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

IMM1P094

09/125,711

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U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-Class	Filing Date
DD	A	5,185,561	2/9/93	Good et al.	318	432	7/23/91
DD	B	5,203,563	4/20/93	Loper, III	273	148 B	3/21/91
DD	C	5,220,260	6/15/93	Schuler	318	561	10/24/91
DD	D	5,223,776	6/29/93	Radke et al.	318	568.1	12/31/90
DD	E	5,235,868	8/17/93	Culver	74	471 XY	10/2/91
DD	F	5,354,162	10/11/94	Burdea et al.	414	5	8/31/92
DD	G	5,355,148	10/11/94	Anderson	345	166	1/14/93
DD	H	5,396,266	3/7/95	Brimhall	345	161	6/8/93
DD	I	5,399,091	3/21/95	Mitsumoto	434	61	4/26/93
DD	J	5,405,152	4/11/95	Katanics et al.	273	438	6/8/93
DD	K	5,414,337	5/9/95	Schuler	318	561	6/11/93

Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation Yes	No
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	O							
	P							

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
DD	R	Iwata, "Artificial Reality with Force-feedback: Development of Desktop Virtual Space with Compact Master Manipulator," Computer Graphics, Vol. 24, No. 4, Aug. 1990, pp. 165-170.
DD	S	Ouh-young, et al., "Creating an Illusion of Feel: Control Issues in Force Display," Dept. of Comp. Science, Univ. of No. Carolina, Sept. 1989, pp. 1-14.
DD	T	Gotow, et al., "Perception of Mechanical Properties at the Man-Machine Interface," Dept. of Mech. Eng., The Robotics Inst., Carnegie Mellon Univ., CH2503-1/87/0000, pp. 688-689.
Examiner: <i>Durden</i>		Date Considered: 2/02/01

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub- Class	Filing Date
DD	A	5,512,919	4/30/96	Araki	345	156	3/30/93
DD	B	5,513,100	4/30/96	Parker et al.	364	167.01	6/10/93
DD	C	5,576,727	11/19/96	Rosenberg et al.	345	179	6/5/95
DD	D	5,583,478	12/10/96	Renzi	340	407.1	3/1/95
DD	E	5,587,937	12/24/96	Massie et al.	364	578	4/25/95
DD	F	5,589,854	12/31/96	Tsai	345	161	6/22/95
DD	G	5,629,594	5/13/97	Jacobus et al.	318	568.11	10/16/95
DD	H	5,642,469	6/24/97	Hannaford et al.	395	99	11/3/94
DD	I	5,643,087	7/1/97	Marcus et al.	463	38	7/29/94
DD	J	5,666,473	9/9/97	Wallace	345	420	10/8/92
DD	K	5,691,898	11/25/97	Rosenberg et al.	364	190	3/28/96

Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub- class	Translation	
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Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
DD	R	Rosenberg, "Virtual fixtures as tools to enhance operator performance in telepresence environments," SPIE Telemanipulator Technology, 1993.
DD	S	Rosenberg, "Virtual haptic overlays enhance performance in telepresence tasks," Dept. of Mech. Eng., Stanford Univ., 1994.
DD	T	Rosenberg, "Perceptual Design of a Virtual Rigid Surface Contact," Center for Design Research, Stanford Univ., Armstrong Laboratory, Apr. 1993, pp. i-vi, 1-40.
Examiner:		Date Considered:

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U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-Class	Filing Date
DD	A	5,709,219	1/20/98	Chen et al.	128	782	8/1/96
DD	B	5,714,978	2/3/98	Yamanaka et al.	345	157	12/5/95
DD	C	5,721,566	2/24/98	Rosenberg et al.	345	161	6/9/95
DD	D	5,734,373	3/31/98	Rosenberg et al.	345	161	12/1/95
DD	E	5,742,278	4/21/98	Chen et al.	345	156	11/1/95
DD	F	5,754,023	5/19/98	Roston et al.	318	561	10/22/96
DD	G	5,755,577	5/26/98	Gillio	434	262	7/11/96
DD	H	5,767,839	6/16/98	Rosenberg	345	161	3/3/95
DD	I	5,802,353	9/1/98	Avila et al.	395	500	6/12/96
DD	J	5,844,392	12/1/98	Peurach et al.	318	568.17	5/21/97
DD	K	5,889,670	3/30/99	Schuler et al.	364	186	1/11/96

Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation Yes	No
	L							
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Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
DD	R	Rosenberg, et al., "Perceptual Decomposition of Virtual Haptic Surfaces," Proc. IEEE Symposium On Research Frontiers in Virtual Reality, Oct. 1993.
DD	S	Howe, et al., "Task Performance with a Dextrous Teleoperated Hand System," Harvard Univ., Proc. of SPIE, Vol. 1833, Nov. 1992, pp. 1-9.
DD	T	Batter, et al., "GROPE-1: A Computer Display to the Sense of Feel," Proc. IFIP Congress 1971, pp. 759-763.
Examiner: <i>J. J. J.</i>		Date Considered: 2/20/01

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U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-Class	Filing Date
DD	A	5,944,151	8/31/99	Jakobs et al.	188	267.1	7/9/96
	B						
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Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation Yes	No
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	N							
	O							
	P							

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
DD	R	Brooks, Jr., et al., "Project GROPE - Haptic Displays for Scientific Visualization," Dept. of Computer Science, Univ. of No. Carolina, pp. 177-185.
DD	S	Atkinson, et al., "Computing With Feeling," Comput. & Graphics, Vol. 2, pp. 97-103, 1977.
DD	T	Wiker, et al., "Development of Tactile Mice for Blind Access to Computers: Importance of Stimulation Locus, Object Size, and Vibrotactile Display Resolution," Proc. of the HFS 35 th Annual Mtg., 1991, pp. 708-712.
Examiner:	Date Considered: 2/20/01	

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

#14

Form 1449 (Modified) Information Disclosure Statement By Applicant <i>(Use Several Sheets if Necessary)</i>	Atty Docket No.: IMM1P094	Application No.: 09/125,711
	Applicant: T. Shalit	
	Filing Date: 3/4/99	Group: 2774

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-Class	Filing Date
DP	A	5,784,052	7/21/98	Keyson	345	167	3/12/96
	B						
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Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
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Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
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Examiner:	<i>Duchene</i>	
	Date Considered:	2/20/02

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

#15

Form 1449 (Modified) Information Disclosure Statement By Applicant <i>(Use Several Sheets if Necessary)</i>	Atty Docket No.: IMM1P094	Application No.: 09/125,711
	Applicant: T. Shalit	
	Filing Date: 3/4/99	Group: 2774

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub- Class	Filing Date
DP	A	5,506,605	4/9/96	Paley	345	163	1/26/94
DP	B	5,914,705	6/22/99	Johnson et al.	345	156	2/9/96
DP	C	6,001,014	12/14/99	Ogata et al.	463	37	9/30/97
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Foreign Patent or Published Foreign Patent Application

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Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
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Examiner: <i>Bucderh</i>		Date Considered: <i>2/15/01</i>

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.